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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/814,634	03/22/2001	Naoya Katoh	1819/100131	6293

7590 02/15/2005

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EXAMINER

TILLERY, RASHAWN N

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 02/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/814,634

Applicant(s)

KATOH ET AL.

Examiner

Rashawn N Tillery

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 12-21 and 33-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,9,22,23,30 and 31 is/are rejected.
- 7) ☐ Claim(s) 3-8,10,11 and 24-29 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8/8/2001.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 12-21 and 33-42 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on July 26, 2004.

Claim Objections

Claim 26 is objected to because of the following informalities: claim 26 is dependent from itself; for purposes of examination, the examiner will interpret the claim as if dependent from claim 23. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 9, 22 and 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al (US5579132).

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Regarding claims 1 and 22, Takahashi discloses, in figure 3, a method for determining a color rendering capability of at least one color imaging device with multiple color channels, the method comprising:

obtaining spectral sensitivity curves (RGB) for two or more of the multiple color channels in the color imaging device; and

determining an image quality value (q factor) for the color imaging device from the spectral sensitivity curves for the two or more of the multiple color channels in the color imaging device (see col. 7, lines 28-41).

Regarding claims 9 and 30, Takahashi discloses evaluating the color rendering capability of the color imaging device based on the determined image quality value (see col. 7, lines 28-41).

Regarding claim 31, Takahashi discloses the evaluation system further comprises a comparison system that compares the image quality value of the color imaging device against an image quality standard (see col. 7, lines 28-41 where the color-matching function is discussed).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 2 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi in view of Applicant's conceded prior art.

Regarding claims 2 and 23, Takahashi discloses determining an image q factor based on the obtained spectral sensitivity curves. Takahashi does not expressly disclose that the image quality value is determined based on the q factor and a μ factor. Applicant's conceded prior art reveals that the μ factor is a well known quality factor in the art for determining an image quality value (see page 3). Applicant further reveals that the single use of either the q factor or the μ factor would not suffice in determining quality image reproduction. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Takahashi's device in view of Applicant's prior art teachings. One would have been motivated to determine an image quality value based on both the μ factor and the q factor in an effort to produce quality image reproduction.

Allowable Subject Matter

Claims 3-8, 10, 11, 24-29 and 32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 3 and 24, the prior art does not teach or fairly suggest an imaging device analyzing system comprising a source for spectral sensitivity curves, an image quality processing system and a μ -factor processing system, wherein

the image quality processing system determines an image quality value based on a relationship between the determined μ -factor and the at least one other quality factor, the image quality value being a substantial average of a minimum and a maximum value for the quality factor associated with the determined μ -factor.

Regarding claims 4 and 25, the prior art does not teach or fairly suggest an imaging device analyzing system comprising a source for spectral sensitivity curves, an image quality processing system and a μ -factor processing system, wherein

the at least one other quality factor is a delta E factor.

Regarding claims 5 and 26, the prior art does not teach or fairly suggest an imaging device analyzing system comprising a source for spectral sensitivity curves, an image quality processing system and a μ -factor processing system, wherein

the image quality value is a color difference metric value.

Regarding claims 6 and 27, the prior art does not teach or fairly suggest an imaging device analyzing system comprising a source for spectral sensitivity curves, an image quality processing system and a μ -factor processing system, wherein

the image quality processing system determines a Universal Measure of Goodness factor based on the obtained spectral sensitivity curves, wherein the image quality value is based on the Universal Measure of Goodness factor and at least one other quality factor.

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Regarding claim 32, the prior art does not teach or fairly suggest an imaging device analyzing system comprising a source for spectral sensitivity curves, an image quality processing system, a μ -factor processing system and an evaluation system, wherein

the evaluation system further comprises a comparison system that compares the image quality values of two or more of the color imaging devices against each other.

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Cass teaches a system for determining an optimal color space; Asami teaches a color imaging process using laser exposure; Juen teaches a color reproduction correction device; Hung teaches an electronic camera capable of adjusting color tone; Abe et al teach a lens having color correction data; Imai et al teach multi-spectral analysis.

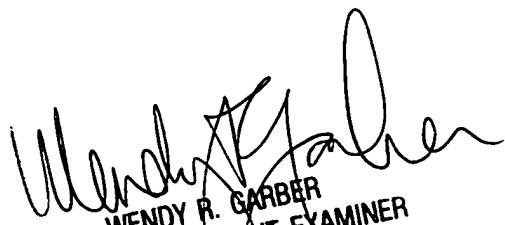
2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rashawn N Tillery whose telephone number is 703-305-0627. The examiner can normally be reached on 9AM-6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wendy Garber can be reached on 703-305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RNT



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